WE CLAIM:

1. A seismic isolation bearing assembly comprising:

a frame unit including upper and lower frames that are spaced apart from each other, said upper frame being adapted to be secured to a machine body and defining a plurality of upper sub-frames, said lower frame being adapted to be secured to a foundation, on which the machine body is to be supported, and defining a plurality of lower sub-frames, each of which is aligned and cooperates with a respective one of said upper sub-frames to define a mounting cell therebetween; and

a plurality of bearing units, each of which is mounted in said mounting cell defined by a respective one of said upper sub-frames and a respective one of said lower sub-frames, and each of which includes spaced apart upper and lower load plates and a bearing interposed between and in sliding contact with said upper and lower load plates, said upper load plate being secured to the respective one of said upper sub-frames, said lower load plate being secured to the respective one of said lower sub-frames.

2. The seismic isolation bearing assembly of Claim 1, wherein said bearing of each of said bearing units is in the form of a cylindrical rod.

3. The seismic isolation bearing assembly of Claim 2, wherein said cylindrical rods of said bearing

units are disposed at the same level and are parallel to each other.

4. The seismic isolation bearing assembly of Claim 3, wherein said upper load plate has an upper contact surface that faces toward said lower load plate, said lower load plate having a curved lower contact surface that confronts said upper contact surface of said upper load plate, said bearing being disposed between and being in sliding contact with said upper contact surface of said upper load plate and said lower contact surface of said lower load plate, said lower contact surface of said lower load plate having two opposite ends that are opposite to each other in a transverse direction relative to said cylindrical rod of the respective one of said bearing units, and extending curvedly in said transverse direction to define a rest line of a lowest level in a middle position between said opposite ends of said lower contact surface so as to permit resting of said cylindrical rod on said lower contact surface of said lower load plate along said rest line by virtue of gravity.

5. The seismic isolation bearing assembly of Claim 4, wherein said upper contact surface of said upper load plate extends curvedly in said transverse direction, and has a shape that is inverse of that of said lower contact surface of said lower load

plate.

6. The seismic isolation bearing assembly of Claim 5, wherein each of said upper sub-frames has two opposite side portions that are opposite to each other in an axial direction relative to said cylindrical rod, each of said lower sub-frames having two opposite side portions that are aligned respectively with said opposite side portions of the respective one of said upper sub-frames, each of said opposite side portions of each of said lower sub-frames being spaced apart from the respective one of said opposite side portions of the respective one of said upper sub-frames by a distance that is less than the diameter of said cylindrical rod so as to limit movement of said cylindrical rod within said mounting cell.

7. The seismic isolation bearing assembly of Claim 1, further comprising a plurality of resistance-providing members, each of which is disposed between an adjacent pair of said mounting cells and each of which is associated with said upper and lower frames so as to provide a friction force therebetween when an external horizontal force is applied to said seismic isolation bearing assembly.

8. A seismic isolation bearing assembly comprising:

a frame unit including upper and lower frames that are spaced apart from each other, said upper

frame being adapted to be secured to a machine body and defining a plurality of upper sub-frames, said lower frame being adapted to be secured to a foundation, on which the machine body is to be supported, and defining a plurality of lower sub-frames, each of which is aligned and cooperates with a respective one of said upper sub-frames to define a mounting cell therebetween; and

a plurality of bearing units, each of which is mounted in said mounting cell defined by a respective one of said upper sub-frames and a respective one of said lower sub-frames, and each of which includes spaced apart upper and lower load plates, an intermediate load plate interposed between said upper and lower load plates, an upper bearing interposed between and in sliding contact with said upper and intermediate load plates, and a lower bearing interposed between and in sliding contact with said intermediate and lower load plates, said upper load plate being secured to the respective one of said upper sub-frames, said lower load plate being secured to the respective one of said lower sub-frames.

9. The seismic isolation bearing assembly of Claim 8, wherein each of said upper and lower bearings of each of said bearing units is in the form of a cylindrical rod.

10. The seismic isolation bearing assembly of Claim 9, wherein said upper bearings of said bearing units are disposed at the same level and are parallel to each other, said lower bearings of said bearing units being disposed at the same level, being parallel to each other, and being transverse to said upper bearings.

11. The seismic isolation bearing assembly of Claim 10, wherein said upper load plate has an upper contact surface that faces toward said intermediate load plate, said intermediate load plate having a curved first intermediate contact surface that confronts said upper contact surface of said upper load plate, said upper bearing being disposed between and being in sliding contact with said upper contact surface of said upper load plate and said first intermediate contact surface of said intermediate load plate, said first intermediate contact surface of said intermediate load plate having two opposite ends that are opposite to each other in a first transverse direction relative to said cylindrical rod of said upper bearing, and extending curvedly in said first transverse direction to define an intermediate rest line of a lowest level in a middle position between said opposite ends of said first intermediate contact surface so as to permit resting of said cylindrical rod of said upper bearing on said first intermediate

contact surface of said intermediate load plate along said intermediate rest line by virtue of gravity.

12. The seismic isolation bearing assembly of Claim 11, wherein said intermediate load plate further has a second intermediate contact surface that is opposite to said first intermediate contact surface, said lower load plate having a curved lower contact surface that faces toward said intermediate load plate, said lower bearing being disposed between and being in sliding contact with said second intermediate contact surface of said intermediate load plate and said lower contact surface of said lower load plate, said lower contact surface of said lower load plate having two opposite ends that are opposite to each other in a second transverse direction relative to said cylindrical rod of said lower bearing, and extending curvedly in said second transverse direction to define a lower rest line of a lowest level in a middle position between said opposite ends of said lower contact surface so as to permit resting of said cylindrical rod of said lower bearing on said lower contact surface of said lower load plate along said lower rest line by virtue of gravity.

13. The seismic isolation bearing assembly of Claim 12, wherein said upper contact surface of said upper load plate extends curvedly in said first transverse

direction, and has a shape that is inverse of that of said first intermediate contact surface of said intermediate load plate.

14. The seismic isolation bearing assembly of Claim 13, wherein said second intermediate contact surface of said intermediate load plate extends curvedly in said second transverse direction, and has a shape that is inverse of that of said lower contact surface of said lower load plate.

15. The seismic isolation bearing assembly of Claim 14, wherein each of said upper sub-frames has two opposite side portions that are opposite to each other in a first axial direction relative to said cylindrical rod of said upper bearing, said intermediate load plate being formed with two opposite side walls, each of which is aligned with and spaced apart from a respective one of said side portions of the respective one of said upper sub-frames by a distance that is less than the diameter of said cylindrical rod of said upper bearing so as to limit movement of said cylindrical rod of said upper bearing within said mounting cell.

16. The seismic isolation bearing assembly of Claim 15, wherein each of said lower sub-frames has two opposite side portions that are opposite to each other in a second axial direction relative to said cylindrical rod of said lower bearing, each of said

side walls of said intermediate load plate being aligned with and spaced apart from a respective one of said side portions of the respective one of said lower sub-frames by a distance that is less than the diameter of said cylindrical rod of said lower bearing so as to limit movement of said cylindrical rod of said lower bearing within said mounting cell.

17. The seismic isolation bearing assembly of Claim 8, further comprising a plurality of resistance-providing members, each of which is disposed between an adjacent pair of said mounting cells and each of which is associated with said upper and lower frames so as to provide a friction force therebetween when an external horizontal force is applied to said seismic isolation bearing assembly.